Application No.: NEW

Docket No.: 2835-0168PUS1

AMENDMENTS TO THE CLAIMS

1. (Original) A method for the manufacture of a noble metal catalyst for hydrocarbon conversion, characterized in that the method comprises the following steps:

- a) Pre-treatment of a support comprising a zeolite selected from medium and large pore zeolites having acid sites, at a temperature between 423 1173 K, and optional modification of the support;
- b) Deposition of a noble metal selected from platinum, palladium, ruthenium, rhodium, iridium and mixtures and combinations thereof by gas phase deposition technique comprising vaporisation of the noble metal precursor selected from β-diketonates and metallocenes and reaction with the support, and
- c) Heat treatment at oxidising or reducing conditions.
- 2. (Original) The method according to claim 1, characterized in that the noble metal is platinum.
- 3. (Original) The method according to claim 1 or 2, characterized in that the zeolite is selected from large pore zeolites having weak or medium strength of acid sites.

4. (Currently Amended) The method according to any one of claims 1 3 claim 1, characterized in that the zeolite is selected from mesoporous aluminosilicates, crystalline aluminosphates and crystalline aluminosilicophosphates.

- 5. (Currently Amended) The method according to any one of claims 1 4 claim 1, characterized in that the zeolite is selected from MCM-41, Y- and beta-zeolites, mordenites, AlPO-5 and AlPO-11, SAPO-5 and SAPO-11.
- 6. (Currently Amended) The method according to any one of claims 1 5 claim 1, characterized in that the support further comprises inorganic oxide, carbon related material or mixtures or combinations thereof.
- 7. (Original) The method according to claim 6, **characterized** in that the inorganic oxide is selected from silicon oxide, aluminum oxide, titanium oxide, zirconium oxide, tungsten oxide and magnesium oxide, preferably from silicon oxide and aluminum oxide.
- 8. (Original) The method according to claim 6, **characterized** in that the carbon related material is selected from activated carbon, graphite and carbon nanotubes.
- 9. (Currently Amended) The method according to any one of claims 1—8 claim 1, characterized in that the noble metal precursor is (CH₃)₃(CH₃C₅H₄)Pt.

10. (Currently Amended) The method according to any one of claims 1 9 claim 1, characterized in that the zeolite is MCM-41.

- 11. (Currently Amended) The method according to any one of claims 1 10 claim 1, characterized in that in the first process step a) the support is pre-treated at a temperature of 423-1173 K, and in the second step b) the deposition is carried out in the presence of an inert carrier gas.
- 12. (Original) The method according to claim 11, **characterized** in that the inert carrier gas is nitrogen, helium, argon or methane.
- 13. (Currently Amended) The method according to any one of claims 1—12 claim 1, characterized in that the modification in the first step a) is carried out by blocking part of available surface sites on the support with a blocking agent selected from alcohols, acetyl acetone, 2,2,6,6-tetramethyl-3,5-heptanedione, precursors of silicon oxide, aluminum oxide, titanium oxide, zirconium oxide, tungsten oxide and magnesium oxide, and nitrates.
- 14. (Original) The method according to claim 13, **characterized** in that the blocking agent is silicon tetrachloride, tetramethoxysilane, tetraethoxysilane, hexamethyldisilazane, hexamethyldisilazane, aluminum chloride, aluminum ethoxide, aluminum (III) acetylacetonate, tris(2,2,6,6,-tetramethyl-3,5-heptanedionato)aluminum, trimethyl

aluminum, triethyl alumi-num, titanium tetrachloride, titanium isopropoxide, zirconium tetrachloride, tungsten oxy-chloride, tungsten hexachloride or tris(2,2,6,6-tetramethyl-3,5-heptanedionato) magnesium.

- 15. (Currently Amended) Use of the noble metal catalyst manufactured according to the method of any one of claims 1 14 claim 1 in ring-opening, isomerisation, alkylation, hydrocarbon reforming, dry reforming, hydrogenation and dehydrogenation reactions, and preferably in ring-opening of naphthenic molecules.
- 16. (Currently Amended) A process for the manufacture of middle distillate diesel fuel, characterized in that a middle distillate feedstock is transferred to a reactor wherein it is allowed to react at a temperature of 283 673 K and under a pressure of 10 200 bar with hydrogen in the presence of a noble metal catalyst manufactured according to the method of any one of claims 1-14 claim 1 to accomplish opening of naphthenes with two and multiple rings to produce isoparaffins, n-paraffins and mononaphthenes in the middle distillate region.